Grade 5 Correlation Guide
2016 Science Indiana Academic Standards to 2022 Performance Expectations*

Physical Science	
2016 Indiana Academic Standard	**2022 Performance Expectation**
	5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen.
5.PS.2 Demonstrate that regardless of how parts of an object are assembled the mass of the whole object is identical to the sum of the mass of the parts; however, the volume can differ from the sum of the volumes. (Law of Conservation of Mass).	**5-PS1-2.** Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
5.PS.1 Describe and measure the volume and mass of a sample of a given material.	**5-PS1-3.** Make observations and measurements to identify materials based on their properties.
	5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
	5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.
5.PS.4 Describe the difference between weight being dependent on gravity and mass comprised of the amount of matter in a given substance or material.	**5-PS3-1.** Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Life Science	
2016 Indiana Academic Standard	**2022 Performance Expectation**
5.ESS.4 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	**5-LS1-1.** Support an argument that plants get the materials they need for growth chiefly from air and water.
5.LS.1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	**5-LS2-1.** Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Earth and Space Science	
2016 Indiana Academic Standard	**2022 Performance Expectation**
	5-ESS1-1. Support an argument that the apparent brightness of the sun compared to other stars is due to their relative distances from the Earth.
5.ESS.2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	**5-ESS1-2.** Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.
5.ESS.4 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	**5-ESS2-1.** Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
	5-ESS2-2. Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.
5.ESS.3 Investigate ways individual communities within the United States protect the Earth's resources and environment.	**5-ESS3-1.** Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

Engineering Design	
2016 Indiana Academic Standard	**2022 Performance Expectation**
3-5.E.1 Identify a simple problem with the design of an object that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost.	**3-5.ETS1-1.** Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
3-5.E.2 Construct and compare multiple plausible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	**3-5.ETS1-2.** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5.E.3 Construct and perform fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	**3-5.ETS1-3.** Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

*Performance expectations are three dimensional. All three dimensions (Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts) must be included as part of effective instruction.

For more information, see the Indiana Department of Education's Indiana Academic Standards webpage or contact the Office of Teaching and Learning.